

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
TYLER DIVISION**

PATENT HARBOR, LLC

Plaintiff,

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v.

AUDIOVOX CORP., et al.,

Defendants.

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CIVIL ACTION NO.

6:10-cv-00361 LED-JDL

JURY TRIAL DEMANDED

v.

LG ELECTRONICS, INC., et al.,

Defendants.

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CIVIL ACTION NO.

6:10-cv-00436 LED-JDL

JURY TRIAL DEMANDED

v.

**TWENTIETH CENTURY FOX
HOME ENTERTAINMENT LLC, et
al.,**

Defendants.

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CIVIL ACTION NO.

6:10-cv-00607 LED-JDL

JURY TRIAL DEMANDED

MEMORANDUM OPINION AND ORDER

This claim construction opinion construes the disputed claim terms in U.S. Patent No. 5,684,515, entitled “Apparatus and Method for Assembling Content Addressable Video” (“the ‘514 patent”) and its continuation, U.S. Patent No. 5,977,992 (“the ‘992 patent”) sharing the same name. The parties have presented their claim construction positions (Doc. Nos. 316, 327, and 330).¹ On

¹The parties submitted joint claim construction briefing across the three cases. For simplicity’s sake, the Court will refer to the docket numbers in the *Twentieth Century Fox Home Entertainment LLC* action.

October 4, 2011, the Court held a joint claim construction hearing. For the reasons stated herein, the Court adopts the constructions set forth below.

OVERVIEW OF THE PATENTS

The patents in suit are directed towards methods and apparatuses for assembling and generating “content addressable video.” *See* ‘514 patent at 1:23-28.² The ‘514 patent describes an improvement to an interactive video system capable of displaying content based on video as described in U.S. Patent No. 4,857,902, entitled “Position-Dependant Interactivity System for Image Display” (“the Naimark Patent”) and referenced by the ‘514 patent. *Id.* at 4:27-29 (“Background concerning how to implement these interactive display systems can be found in the above cross referenced U.S. Pat. No. 4,857,902). The Naimark Patent discloses a system where, for example, a user may interact with a video of the Golden Gate Bridge by positioning a cursor on a virtual representation of the bridge and, in response, a video clip is accessed with the content indicated by the position of the cursor. *See* Naimark Patent at 4:48-5:4. For example, if a user positions the cursor on the northeast side of the bridge, the display device accesses video frames corresponding to video images taken from the northeast side of the bridge. *See id.* The system accomplishes this by storing the video frames with tags indicating the content of the video frames which can be accessed based on a user’s interaction with the virtual representation.

Practicing the Naimark Patent, however, required manually associating tags with frames of video which was a “time-consuming, tedious process.” ‘514 patent at 1:52-53. To solve this, the ‘514 and ‘992 patents disclose methods and apparatuses for automating the association of tags with

²Plaintiff’s assert Claims 1 and 6 of the ‘514 patent and Claim 2 of the ‘992 patent. Because the patents share the same specification, the Court will only cite to the ‘514 patent unless discussing terms unique to the ‘992 patent.

video frames including at least three embodiments: associating the tags with prerecorded video frames, tagging frames of video as they are recorded, and displaying content based video based on their tags. Claim 1 of the '514 patent is representative of the assembly claims:

1. An apparatus for assembling content addressable video, comprising:
 - video storage which stores a plurality of frames of video data in storage locations having addresses, each frame defining a video image having a content for display;
 - tag storage which stores tags for associated frames of video data in the plurality, the tags indicating the contents of the video images defined by the associated frames;
 - processing resources, connected with the tag storage and the video storage, including resources that execute first program steps which assemble a content video image in response to the tags, the content video image including positions for corresponding frames of video data in the plurality; and
 - the processing resources including resources that execute second program steps which associate positions in the content video image with addresses of storage locations storing corresponding frames of video data.

'514 patent at 13:43-61 (Claim 1).

Claim 2 of the '992 patent is representative of the generating claims:

2. An apparatus for generating content addressable video, comprising:
 - a content image display which displays a content video image representative of an organization of content addressable video, the content video image having positions within the content video image corresponding to desired content of video images to be displayed;
 - a controller, in communication with the content image display, which generates control signals indicating content for video images in response to respective positions within the content video image; and
 - controllable image generator, responsive to the control signals, which produces video images in response to video image data indicated by the control signals corresponding to respective positions in the content video image.

'992 patent at 14:49:64 (Claim 2).

CLAIM CONSTRUCTION PRINCIPLES

“It is a ‘bedrock principle’ of patent law that ‘the claims of a patent define the invention to which the patentee is entitled the right to exclude.’” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (quoting *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004)). The Court examines a patent’s intrinsic evidence to define the patented invention’s scope. *Id.* at 1313-1314; *Bell Atl. Network Servs., Inc. v. Covad Commc’ns Group, Inc.*, 262 F.3d 1258, 1267 (Fed. Cir. 2001). Intrinsic evidence includes the claims, the rest of the specification, and the prosecution history. *Phillips*, 415 F.3d at 1312-13; *Bell Atl. Network Servs.*, 262 F.3d at 1267. The Court gives claim terms their ordinary and customary meaning as understood by one of ordinary skill in the art at the time of the invention. *Phillips*, 415 F.3d at 1312-13; *Alloc, Inc. v. Int’l Trade Comm’n*, 342 F.3d 1361, 1368 (Fed. Cir. 2003).

Claim language guides the Court’s construction of claim terms. *Phillips*, 415 F.3d at 1314. “[T]he context in which a term is used in the asserted claim can be highly instructive.” *Id.* Other claims, asserted and unasserted, can provide additional instruction because “terms are normally used consistently throughout the patent.” *Id.* Differences among claims, such as additional limitations in dependent claims, can provide further guidance. *Id.*

“[C]laims ‘must be read in view of the specification, of which they are a part.’” *Id.* (quoting *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995)). “[T]he specification ‘is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.’” *Id.* (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)); *Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1325 (Fed. Cir. 2002). In the specification, a patentee may define his own terms, give a claim term

a different meaning that it would otherwise possess, or disclaim or disavow some claim scope. *Phillips*, 415 F.3d at 1316. Although the Court generally presumes terms possess their ordinary meaning, this presumption can be overcome by statements of clear disclaimer. *See SciMed Life Sys., Inc. v. Advanced Cardiovascular Sys., Inc.*, 242 F.3d 1337, 1343-44 (Fed. Cir. 2001). This presumption does not arise when the patentee acts as his own lexicographer. *See Irdeto Access, Inc. v. EchoStar Satellite Corp.*, 383 F.3d 1295, 1301 (Fed. Cir. 2004).

The specification may also resolve ambiguous claim terms “where the ordinary and accustomed meaning of the words used in the claims lack sufficient clarity to permit the scope of the claim to be ascertained from the words alone.” *Teleflex, Inc.*, 299 F.3d at 1325. For example, “[a] claim interpretation that excludes a preferred embodiment from the scope of the claim ‘is rarely, if ever, correct.’” *Globetrotter Software, Inc. v. Elam Computer Group Inc.*, 362 F.3d 1367, 1381 (Fed. Cir. 2004) (quoting *Vitronics Corp.*, 90 F.3d at 1583). But, “[a]lthough the specification may aid the court in interpreting the meaning of disputed language in the claims, particular embodiments and examples appearing in the specification will not generally be read into the claims.” *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1560, 1571 (Fed. Cir. 1988); *see also Phillips*, 415 F.3d at 1323.

The prosecution history is another tool to supply the proper context for claim construction because a patentee may define a term during prosecution of the patent. *Home Diagnostics Inc. v. LifeScan, Inc.*, 381 F.3d 1352, 1356 (Fed. Cir. 2004) (“As in the case of the specification, a patent applicant may define a term in prosecuting a patent”). The well established doctrine of prosecution disclaimer “preclud[es] patentees from recapturing through claim interpretation specific meanings disclaimed during prosecution.” *Omega Eng’g Inc. v. Raytek Corp.*, 334 F.3d 1314, 1323 (Fed. Cir.

2003). The prosecution history must show that the patentee clearly and unambiguously disclaimed or disavowed the proposed interpretation during prosecution to obtain claim allowance. *Middleton Inc. v. 3M Co.*, 311 F.3d 1384, 1388 (Fed. Cir. 2002). “Indeed, by distinguishing the claimed invention over the prior art, an applicant is indicating what the claims do not cover.” *Spectrum Int’l v. Sterilite Corp.*, 164 F.3d 1372, 1378-79 (Fed. Cir. 1998) (quotation omitted). “As a basic principle of claim interpretation, prosecution disclaimer promotes the public notice function of the intrinsic evidence and protects the public’s reliance on definitive statements made during prosecution.” *Omega Eng’g, Inc.*, 334 F.3d at 1324.

Although, “less significant than the intrinsic record in determining the legally operative meaning of claim language,” the Court may rely on extrinsic evidence to “shed useful light on the relevant art.” *Phillips*, 415 F.3d at 1317 (quotation omitted). Technical dictionaries and treatises may help the Court understand the underlying technology and the manner in which one skilled in the art might use claim terms, but such sources may also provide overly broad definitions or may not be indicative of how terms are used in the patent. *Id.* at 1318. Similarly, expert testimony may aid the Court in determining the particular meaning of a term in the pertinent field, but “conclusory, unsupported assertions by experts as to the definition of a claim term are not useful.” *Id.* Generally, extrinsic evidence is “less reliable than the patent and its prosecution history in determining how to read claim terms.” *Id.*

DISCUSSION

The terms in dispute and their corresponding constructions are set forth below.

I. Contested Common Terms and ‘514 Patent Terms

a. “content video image”³

| Plaintiff’s Proposed Construction | Defendant’s Proposed Construction |
|---|---|
| a visual representation of the content of the content addressable video | a virtual space representing the content of content addressable video that while traversed results in corresponding content addressable video being recorded or displayed |

The parties agreed at the *Markman* hearing that a “content video image” is, at a minimum, a “virtual representation.” However, the parties dispute the addition of the phrase “that while traversed in corresponding content addressable video being recorded or displayed.” See PLAINTIFF’S CLAIM CONSTRUCTION BRIEF (DOC. NO. 320) (“PLTFF’S BRIEF”) at 12-13; DEFENDANTS’ RESPONSIVE CLAIM CONSTRUCTION BRIEF (DOC. NO. 327) (“RESPONSE”) at 10-12. As explained below, the Court declines to read in additional terms into the claim language and construes “content video image” as “a virtual representation of the content of the content addressable video.”

Although Defendants do not contend that video may only be displayed by traversing the content video image, they nevertheless argue that that inclusion of “while traversed” is necessary to reflect the patents’ disclosure of a “highly interactive” system. RESPONSE at 10-11. Plaintiff concedes that the patents disclose traversing the content image but argues that the addition of “while traversed” not only renders the claim term incomprehensible, but also impermissibly excludes other embodiments disclosed in the specification. PLTFF’S BRIEF at 12-13; PLAINTIFF’S REPLY BRIEF (“REPLY”) at 2-3.

The specification discloses a content video image that can be “traversed,” *i.e.* a cursor can be scanned along a grid representing the content video image, and/or “selected,” *i.e.* a cursor

³This term is found in Claims 1 and 6 of the ‘514 patent and Claim 2 of the ‘914 patent.

position can call up video. *See* ‘514 patent 2:50-52; *see also id.* at 5:36-41 (“Finally a user input device is provided for selecting a video frame in response to a position on the content image”); *id.* at Figure 4, Block 404. Moreover, Plaintiff notes that the embodiment discussed in Section D of the ‘514 patent describing an “automatic assembly routine . . . for teaching music” teaches that the content video image can be either selectable or traversable. *See* PLTFF’S BRIEF at 13; *see also* ‘514 patent 9:45-46. The embodiment teaches that “a sequence of frames is displayed in response to a user selecting the position,” *i.e.*, is selectable, and that “[i]n a more simple case as described above, only a single frame may be displayed in response to positioning of the cursor,” *i.e.*, traversing. ‘514 patent 11:14-19.

Because the specification describes multiple embodiments not limited to traversing a content video image and the patentee has not demonstrated a “clear intention to limit the claim scope using ‘words or expressions of manifest exclusion or restriction,’” the Court declines to adopt Defendants’ construction. *Liebel-Flarsheim v. Medrad, Inc.*, 358 F.3d 898, 906 (Fed. Cir. 2004) (quoting *Teleflex, Inc.*, 299 F.3d at 1327). As a result, the Court construes “content video image” as “a virtual representation of the content of the content addressable video.”

b. “The content video image including positions indicating content of corresponding frames of video in the plurality,” and similar phrases

| Claim Term Requiring Construction | Plaintiff’s Proposed Construction | Defendant’s Proposed Construction |
|---|---|--|
| the content video image having positions within the content video image corresponding to desired content of video images to be displayed [‘992 patent Claim 2] | the content video image having positions within the content video image corresponding to the content of video to be generated for display | the content video image having selectable positions within the content video image corresponding to the content of video to be generated for display |

| | | |
|--|---------------------------|---|
| the content video image including positions for corresponding frames of video data in the plurality [‘514 patent Claim 1] | No construction necessary | the content video image including selectable positions for corresponding frames of video data |
| the content video image including positions indicating the content of corresponding frames of video data in the plurality [‘514 patent Claim 6] | No construction necessary | The content video image including selectable positions indicating the content of corresponding frames of video data |

Defendants argue that the claimed positions in the content video image must be selectable and, as a result, ask the Court to insert the term “selectable” into the above claim terms. *See* RESPONSE at 12. It appears from the briefing and argument heard at the *Markman* hearing that Defendants’ main concern is that the content based image reflects more than just a “flat” or “concrete” image, but also includes “‘virtual positions’ used to access video.” RESPONSE at 8 (citing ‘514 patent at 2:11-20); *see also id.* at 12 (“This ability to select particular frames of video by selecting a content video image is fundamental to the purpose for the system – i.e., to provide a ‘highly interactive’ video system . . .”). Moreover, Defendants clarified at the hearing that they were not seeking to limit the claims to discrete selectable positions, but rather merely asking the Court clarify that the positions were active.

As explained above, the specification discloses both “traversing” and “selecting” areas of the content video image. For the same reason that the Court declines to read “while traversing” into content video image, the Court declines to limit by inserting “selectable.” Moreover, the plain language of the other claim terms combined with the Court’s construction of “content video image” as a “virtual representation of the content of the content addressable video” indicates that the content

video image is interactive and therefore more than just a “flat” image. As a result, the Court finds no construction necessary. See *O2 Micro Int'l Ltd.*, 521 F.3d at 1362.

c. “in response to the tags”⁴

| Plaintiff’s Proposed Construction | Defendant’s Proposed Construction |
|-----------------------------------|-----------------------------------|
| based on the tags | no construction necessary |

Defendants’ argue that no construction is necessary and “in response to the tags” should be understood according to its ordinary meaning, which Defendants’ argue “describe[s] a cause and effect relationship between the tags and the content video image.” RESPONSE at 22. As Defendants point out, the patent discloses that “a processing unit assembles a content video image in response to the tags.” *Id.* However, there is no support for the assertion that there is a cause and effect relationship between the processing unit and the tags. In other words, the specification does not support, let alone require, that the tags cause the processing unit to assemble the content video. Rather, the content video image is assembled or generated based on the tags. See ‘514 patent, Fig. 4, Element 402 (“Generate content image based on keys”); see also *id.* at 5:19-25. Failing to construe the phrase could result in the erroneous assumption that “in response to the tags” implies a cause and effect relationship which is not supported in the specification. Accordingly, the Court construes the phrase “in response to tags” as “based on the tags.”

e. “tag storage” and similar terms

| Claim Term Requiring Construction | Plaintiff’s Proposed Construction | Defendant’s Proposed Construction |
|-----------------------------------|-----------------------------------|-----------------------------------|
| tag storage which stores tags | Patent Harbor does not | tag storage which stores a tag |

⁴This term is found in Claims 1 and 6 of the ‘514 patent.

| | | |
|---|---|---|
| for associated frames of video data in the plurality [‘514 patent Claim 1] | believe that construing this phrase would be helpful to a jury. Alternatively, storage should be construed as "memory" | for each frame of video data in the plurality |
| storing tags in memory for frames of video data in the plurality [514 patent Claim 6] | Patent Harbor does not believe that construing this phrase would be helpful to a jury. | storing a tag in memory for each frame of video data in the plurality |

Plaintiff argues that there is no indication in the specification or elsewhere to limit the claim scope to tagging each individual frame. PLTFF’S BRIEF at 21-22. Plaintiff points to the language in the specification that states “a key is assigned to video frames or segments of frames that are stored.” *Id.* (quoting ‘514 patent at 5:10-11). Moreover, Plaintiff cites to Section D, the piano embodiment: “In this embodiment, a sequence of frames is displayed in response to a user selecting the position which range from frame 0-220 as shown in Table II. In a more simple case as described above, only a single frame may be displayed in response to position of the cursor.” ‘514 patent 11:14-19; *see also* REPLY at 4. Plaintiff therefore argues that the patents “clearly contemplate an embodiment where *multiple frames* are played back in response to the selection of a single position in the content video image.” REPLY at 4.

Defendants argue that a one-to-one relationship between frames and tags is confirmed through the specification and in each embodiment. RESPONSE at 25. *See e.g.*, ‘514 patent at 1:66-2:1 (“Each frame of video data is stored with a tag which indicates the contents of the video image defined by the associated frames”); *id.* at 2:13 (“each frame can be tagged with a position stamp”); *id.* at 5:15-18 (“a sequence of video along a given highway having a known start point and stop point can be assigned keys based on the position of each frame”); *id.* at 6:67-7:2 (“relationship of each

frame to its corresponding content image in a graphic space using keys and the system's processing unit"); *id.* at 8:34-35 ("position stamps are included with each individual frame"); *id.* at 10:58-59 ("a key is assigned to each video frame corresponding to block 401 of FIG. 4"). Furthermore, Defendants rely on the declaration of Michael T. MacKay in the '514 patent's prosecution history for the proposition that a person having ordinary skill in the art would understand "means for associating tags" as resulting in an "association of a tag (key) with each video frame." RESPONSE at 25 (quoting EX. E TO RESPONSE (Doc. No. 327-5), DECLARATION OF MICHAEL T. MACKAY BEFORE THE USPTO ("MACKAY USPTO DECL."), at ¶ 6).

Although the specification discusses tagging each individual frame in various places throughout the specification, in discussing the piano embodiment disclosed in Section D, the patentee clearly indicated that entire segments of frames could be tagged. *See* 514 patent 11:14-19. In describing the mechanics of storing and recalling frames in the context of the transition from one video segment (E1) to another (E2), the specification discloses: "[t]he transition from E1 to E2 is in the original frames 60-360, and the second event stored in frames 360-420. This sequence is divided so that new frame numbers 0-220 are stored with a key identifying them as transitions E1 to E2." *Id.* at 10:65-11:2 (emphasis added). This language is consistent with Plaintiff's interpretation, indicating that the collective frame sequence 0-220 is stored with one key identifying the content of the frame sequence as transitions from E1 to E2.

Defendants further argue that when the specification discloses tagging sequences of frames as in the piano embodiment, each individual frame of the sequence is tagged with an identical tag. RESPONSE at 25. However, a sequence of multiple frames with each frame sharing identical tags would eliminate the interactive functionality of the invention because one tag would correspond to

multiple starting points in the video film library, i.e. after a user selects a position on the content video image, the system would be unable to start the proper section. *See* ‘514 patent 2:61-64 (“This allows for a higher interactive video systems in which frames of video data are addressed by content in an easily understandable and fun to use manner.”) Moreover, Defendants’ reliance on the MacKay PTO Declaration is unavailing. The declaration merely describes one embodiment of the claimed invention in response to a written description rejection based on the term “means for associating tags” and does not foreclose the possibility of tagging sequences of frames. *See* MACKAY PTO DECL. at ¶4. Additionally, Defendants’ quotation is somewhat misleading. Placed in the proper context, MacKay appears to be stating that a person having ordinary skill in the art would understand that Figure 4’s use of the term “key” equates to the claims’ use of the term “tags”:

In the specification, the ‘means for associating tags,’ and the step of associating tags with frames of video data is clearly described. In particular, in Fig. 4, step 401 reads “Assign Key to Each Video Frame.” A person having ordinary skill in the art would readily understand that this results in association of a tag (key) with each video frame.

MACKAY PTO DECL. at ¶ 6; *see also* PLTFF’S BRIEF at 17 (citing MACKAY PTO DECL. at 2-5)(arguing that a person having ordinary skill in the art would understand “key” to equal “tag”).

Because the specification teaches both tagging each frame and tagging sequences of frames, the Court declines to construe the claims to require that each frame be tagged. Having rejected Defendants’ “each frame” requirement, the Court finds the jury would understand the claim terms as written without construction. *See O2 Micro Int’l Ltd.*, 521 F.3d at 1362.

II. Contested ‘992 Patent Terms

a. “generating content addressable video”

| Plaintiff's Proposed Construction | Defendants' Proposed Construction |
|-----------------------------------|---|
| No construction necessary | recording frames of video data that may be addressed based upon their content |

The term “generating content addressable video” occurs in the preamble of Claim 2 of the ‘992 patent which reads, in its entirety, “[a]n apparatus for generating content addressable video comprising.” ‘992 patent at 14:49-50. As a result, the Court is confronted with two issues: (1) whether the preamble is limiting, and (2) if so, whether it limits the claim to a recording device. As explained in below, the Court does not find the preamble limiting and therefore declines to construe the term “generating content addressable video.”

Generally a preamble is considered limiting when it “recites essential structure or steps, or if it is ‘necessary to give life, meaning and vitality to claims or counts.’” *Catalina Marketing Int’l. v. Coolsavings.com, Inc.*, 289 F.3d 801, 808 (Fed. Cir. 2002)(quoting *Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1309 (Fed. Cir. 1999)); *Kropa v. Robie*, 187 F.2d 150, 1952 (C.C.P.A. 1951). However, “a preamble is not limiting ‘where a patentee defines a structurally complete invention in the claim body and uses the preamble only to state a purpose or intended use for the invention.’” *Id.* (quoting *Rowe v. Dror*, 112 F.3d 473, 478 (Fed. Cir. 1997)). With these principles in mind, the Court turns to the claim language to determine if the preamble provides further limitation.

Plaintiff argues that the preamble should not be construed as limiting because the body of the claim recites a structurally complete invention. PLTFF’S BRIEF at 22. Defendants argue that the preamble is limiting because it provides both the antecedent basis for “controllable image generator” and also “provides context in which the claimed invention is implemented.” *See* RESPONSE at 26-29;

DEFENDANTS' MARKMAN PRESENTATION SLIDES ("DFDT'S SLIDES") at 7 (citing *SSL Services, LLC v. Citrix Sys., Inc.*, No. 2:08-cv-158 (E.D. Tex. Sept. 20, 2011)).

First, the Court agrees that Claim 2 recites a structurally complete invention and finds that the claim does not rely on the preamble for any antecedent bases. The absence of the term "controllable image generator" from the preamble combined with the absence of a definite article before "controllable image generator" in the claim language supports this conclusion. Moreover, in contrast to *SSL Services* relied on by Defendants, the preamble recites no claim structure or claim steps and only recites the invention's intended use, i.e. "generating content addressable video." See *SSL Services*, slip. op. at 4, 12-13 (finding that a preamble reciting "a method of carrying out communications over a multi-tier virtual private network, said network including a server and a plurality of client computers, the server and client computers each including means for transmitting data to and receiving data from an open network, comprising the steps of:" limiting because it provided the only antecedent basis for the terms "multi-tier virtual private network," "server", and "plurality of client computers.")

Second, Defendants' argument that the preamble must be limiting because it is necessary to provide context to the invention is misplaced. The court in *SSL Services* found the preamble provided "the context in which the claimed invention is implemented" in part because "the body of the claims rely on the preamble to provide proper antecedent basis for terms appearing in the body of the claims." *SSL Services*, slip. op. at 12. This is consistent with the court's citation of *Seachange International v. C-Cor Inc.* for the proposition that a preamble is limiting where "the preamble provide[s] the only antecedent basis and thus the context essential to understand the meaning of the term." *Id.* (citing *Seachange Int'l v. C-Cor Inc.*, 413 F.1361, 1376 (Fed. Cir. 2005)).

To the extent that Defendants are arguing that a preamble providing context to the invention must be construed, that view was squarely rejected by the Federal Circuit:

[T]he purpose of a claim preamble is to give context for what is being described in the body of the claim; if it is reasonably susceptible to being construed to be merely duplicative of the limitations in the body of the claim (and was not clearly added to overcome a rejection), we do not construe it to be a separate limitation.

Symantec Corp. v. Computer Assocs. Int'l, Inc., 522 F.3d 1279, 1288-89 (Fed. Cir. 2008). Here, because the preamble recites only the use or purpose of the structure and the Defendants have pointed to no clear and unmistakable reliance on that use to distinguish prior art, construing the preamble would be inappropriate. *See Catalina*, 289 F.3d at 509.

Moreover, Defendants' reliance on *General Electric v. Nintendo* is unavailing. *See* RESPONSE at 27 (citing *General Elec. Co. v. Nintendo Co., Ltd.*, 179 F.3d 1350, 1361-62 (Fed. Cir. 1999)). In that case, General Electric asserted several patents against Nintendo, including a patent directed towards "a method for displaying computer generated information on a display screen." *General Elec. Co.*, 179 F.3d at 1359. The court found the preamble limiting because the specification's description of the invention was limited to binary display devices but the disputed claim only mentioned "binary displays" in the preamble. *Id.* at 1361-1362 (finding that the specification "makes it clear that the inventors were working on the particular problem of displaying binary data"). In this case, however, the specification does not "make it clear" that the invention is only limited to "generating" content based video as Defendants argue. The '992 patent shares the same specification as the '514 patent and both parties agree that the '514 specification discloses at a minimum both an assembly and a recording devices. Thus it cannot be said that the specification is so limited as to require the Court to interpret the preamble in this case.

Lastly, the essential dispute is whether Claim 2 recites a display device or a recording device. The Court finds that the issue is better resolved by interpreting the terms in the body of the claim rather than forcing life into the preamble. For the aforementioned reasons, the Court does not find the preamble limiting and thus declines to construe the term “generating content addressable video.”

b. “controllable image generator”

| Plaintiff’s Proposed Construction | Defendants’ Proposed Construction |
|-----------------------------------|-----------------------------------|
| No construction necessary | a controllable camera |

Plaintiff argues that no construction is necessary because “a jury is more than capable of understanding words like ‘controllable,’ ‘image,’ and ‘generator’ alone, and would be just as capable of putting the words together and understanding that they referred to something that could be controlled and that could generated images.” PLTFF’S BRIEF at 26. Plaintiff primarily argues that “[w]hen Claim 2 is properly construed in light of Figure 2, it is clear that no camera of any kind is called for by the claim elements.” REPLY at 7. In the briefing and at the *Markman* Hearing, Plaintiff stressed that the other Claim 2 elements require a construction of “controllable image generator” that is consistent with a display device. *See, e.g.*, PLTFF’S BRIEF at 22-23. Plaintiff emphasizes that the claimed apparatus includes “a content image display for displaying a content image display representative of an organization of content addressable video” and a “controller that generates signals indicating content for video images in response to respective positions within the content image display.” *Id.* at 23. Plaintiff argues further that the controllable image generator “produces video images in response to video image data.” *Id.* Thus, Plaintiff argues that the “claim is clearly

directed to an apparatus that can produce video images (i.e., generates video for display) from pre-recorded video data, as recited in the claims.” *Id.* PLTFF’S BRIEF at 26.

Defendants counter that while “controllable image generator” is never used in the specification, the specification draws a clear distinction between assembling, generating, and displaying. RESPONSE at 27-37. For example, the Summary of Invention describes one aspect of the invention by stating “the present aspect of the invention comprises an apparatus or method for generating content addressable video, which is the converse of assembling the content addressable video.” ‘992 patent 2:29-32. Moreover, the specification describes a “generating content addressable video” aspect of the invention that includes a “controllable camera, such as a robot mounted camera.” ‘992 patent 2:36-37. In contrast, when describing an embodiment for assembling content addressable video, there is no mention of any controllable elements. *See id.* at 1:66-2:14. Defendants also argue that interpreting “controllable image generator” as a controllable camera is consistent with the patentee’s use of the term throughout the patent family. RESPONSE at 37. They argue that because Claim 3 of the ‘514 patent includes “controllable video image generator” and Claim 4 of the ‘514 patent states that “the controllable video image generator comprises a robot mounted video camera,” the term “controllable image generator” as used in Claim 2 of the ‘992 patent should be construed as a recording device.

i. Claim 2 is not Clearly Directed towards a Display Device

First, the Court is not persuaded that Figure 2 is representative of Claim 2. Plaintiff argues that “figure 2 includes a controllable image generator (for example, computer 201) that may, in some embodiments, produce video images from the video data stored on disks 202 and 203.” PLTFF’S BRIEF at 26. However, it is telling that Plaintiff cites to no portion of the specification that describes

a computer as anything remotely akin to a controllable image generator. Moreover, the specification identifies the computer only to say it is connected to a content monitor and that a “cursor input device” is coupled with the computer. *See* ‘992 patent 4:17-18, 23-24. Also telling is the specification’s description of Figure 2 as a “schematic diagram of a system for interactively displaying content addressable video according to the present invention.” ‘992 patent 3:11-14 (emphasis added); *see also id.* at 4:15-17 (“Fig. 2 illustrates the preferred system for displaying the content addressable video according to the present invention)(emphasis added). Given that the specification describes Figure 2 as a display system and provides no explanation of how the “computer” could generate video as required by Claim 2, the Court does not find Plaintiff’s argument persuasive.

Plaintiff’s lack of support for applying Figure 2 to Claim 2 is further illustrated by the ease with which Figure 1 explains Claim 2. Just as Claim 2 uses the term “controllable image generator,” Figure 1 is described as a “schematic diagram of a system for generating, or assembling content addressable video according to the present invention.” ‘992 patent 3:11-14 (emphasis added). Moreover, “Fig. 1 shows a camera 109 whose position is controlled to generate a plurality of frames of video information.” ‘992 patent 3:34-36 (emphasis added). Thus, where Fig. 2 describes a computer which Plaintiff argues, without support from the specification, that “may, in some embodiments, produce video images,” Figure 1 clearly identifies a system for generating content based video using a controllable camera to generate video frames.

Second, Plaintiff’s attempt to draw support from the claim language falls flat. The first two claim elements which Plaintiff relies on in support of its display argument are found verbatim in Claim 3 of the ‘514 patent, which both parties acknowledge is a recording claim. *Compare* ‘992

patent 14:51-59 (Claim 2) *with* ‘514 patent 14:3-11 (Claim 3). Moreover, Plaintiff’s display argument and non-construction would force an erroneous interpretation of “video image data.” Plaintiff contends that Claim 2 of the ‘992 patent only requires the controllable image generator to have the ability to “produce video images” from the content addressable video and that this “production” can be performed by a display device. PLTFF’S BRIEF at 26-27. In other words, Plaintiff argues that the “controllable image generator produces video images from already-existing video image data.” REPLY at 8. In order to reach this conclusion, “video image data” would have to be interpreted as prerecorded video. However, this interpretation of video image data is inconsistent with the specification and the way the claims are drafted across the patent family. *See NTP, Inc. v. Research in Motion, Ltd.*, 418 F.3d 1282, 1293 (Fed. Cir. 2005)(“Because [the] patents all derive from the same parent application and share many common terms, we must interpret the claims consistently across all the patents”). As Defendants point out, the specification does not contain the term “video image data;” however, when referring to prerecorded frames in other claims in the patent family, the patentee refers to “frames of video data” in some form of storage. *See, e.g.*, the ‘514 patent 13:45-46 (Claim 1)(“frames of video data in storage locations”); *id.* at 14:36-37 (Claim 6)(same); *id.* at 13:65-66 (Claim 2)(“frames of video in the video storage”); *id.* at 14:33-34 (Claim 5)(same); *id.* at 16:12-13 (Claim 11)(“frames of video in the storage locations”); *id.* at 14:56-57(Claim 7) (“the frames of video data in the addressable memory”); *id.* at 14:24 (Claim 3)(“stored frames of video data”). Thus, construing “controllable image generator” to include display-type devices would require an interpretation of “video image data” that is at odds with the specification and inconsistent with the patent family’s other claims.

ii. *Construing “Controllable Image Generator” as “Video Recording Device” is Supported by the Intrinsic Record*

Interpreting “controllable image generator” as a “controllable video recorder” is consistent with the claims’ and the specification’s use of “controllable” and “control signals.” The specification consistently uses “controllable” or a variant in the context of a recording device. ‘992 patent at Abstract (“controllable camera”); *id.* at 2:35 (same); *id.* at 2:39-41 (“same”); *id.* at 5:61 (“uncontrolled or free camera environments”); *id.* at 6:35 (“controlled camera environment”); *id.* at 6:39-40 (“where cameras are controlled in stationary or motion controlled environments”); *id.* at 3:35-36 (“The camera position is controlled”). Moreover, the term “control signals” appears five times in the specification of the ‘992 patent and each time it is used in the context of a camera. *See* ‘992 patent Abstract (“A controllable camera, such a robot mounted camera, then generates the frames of video in response to the position control signals derived from the content video image”); *id.* at 2:57-60 (“The camera, mounted on a robot, then traverses real space corresponding to the virtual space of the content video image in response to the control signals, while filming the transmission”); *id.* at 3:66- 4:1 (“The content image 106 can be generated before filming the object 102, and thereby used to generate camera position control signals to control the generation of video”); *id.* at 4:48-50 (“Next, the keys are used by the computer 100 to generate camera position control signals which control the robot to film the object in response to the keys (block 302)”).

Similarly, interpreting “controllable image generator” as a “controllable video recorder” is consistent with the phrase’s usage across the patent family. Claim 3 of the ‘514 patent, which both parties agree recites a recording device, includes the phrase “controllable video image generator.” ‘514 patent 14:13. Claim 4 of the ‘514 patent recites “The apparatus of claim 3, wherein the controllable video image generator comprises a robot mounted video camera.” *Id.* at 14:26-28. Thus, the patentee clearly meant for controllable video image generator to at least encompass a

video camera. Although controllable video image generator must be broader than a robot mounted video camera as Plaintiff argues, it must nevertheless be consistent with the internal record. As shown above, the specification and common usage across the asserted patents supports a finding that controllable image generator is more than merely a display device.

While none of the above is individually dispositive, the cumulative effect of Plaintiff's interpretation's ambiguity and internal inconsistency combined with the strong support in the specification for viewing Claim 2 as a recording claim, drives the Court to construe "controllable image generator" as a "controllable video recording device."⁵

c. "content image display which displays a content video image"

| Plaintiff's Proposed Construction | Defendants' Proposed Construction |
|---|---|
| "content video image" should be construed as proposed above, and if the term "content image display" is to be construed, it should simply be construed as "a display" | a computer monitor for displaying a content video image while content addressable video is generated and/or displayed |

Plaintiff argues that "content image display" should be construed simply as "display" and that there is nothing in the specification, prosecution history, or claim language which requires a "content image display" to be a computer monitor. PLTFF'S BRIEF at 25. Moreover, Plaintiff acknowledges that Fig. 2 shows an embodiment having both a display for displaying a content video image and a display to display content addressable video, but argues that there is nothing in record that the embodiment must do so. *Id.* Defendants are unable to point to a clear disavowal in the specification or prosecution history, instead they argue that every embodiment requires two displays.

⁵ The Court, however, declines to limit the term to "cameras" as suggested by Defendants because, as plaintiff argues, the '992 patent appears to disclose other recording devices such as a computer executing CAD software. *See* '514 patent 5:59 - 6:10.

RESPONSE at 30-31. As such, Defendants argue that a broader interpretation would violate the written description requirements of 35 U.S.C. § 112. *Id.* at 31.

Despite the specification’s recitation of only a single embodiment, “the claims of the patent will not be read restrictively unless the patentee has demonstrated a clear intention to limit the claim scope using ‘words or expressions of manifest exclusion or restriction.’” *Liebel-Flarsheim*, 358 F.3d at 906 (Fed. Cir. 2004) (quoting *Teleflex, Inc.*, 299 F.3d at 1327)). Having resolved the underlying dispute over the scope of “content image display which displays a content video image,” the Court finds that no construction is necessary. *See O2 Micro Int’l Ltd.*, 521 F.3d at 1362.⁶

d. “in response to respective positions within the content video image”

| Plaintiff’s Proposed Construction | Defendants’ Proposed Construction |
|---|---|
| "content video image" should be construed as proposed above, and the remainder of the phrase requires no construction | in response to respective positions of a cursor or camera icon within the content video image |

Plaintiff argues that writing “cursor” and “camera icon” into the claim is inappropriate because they are merely disclosed as exemplary embodiments in the specification. PLTFF’S BRIEF at 29. Defendants, on the other hand, argue that “[w]ithout exception, the ‘992 patent describes indicating positions in the content video image using a cursor or camera icon.” RESPONSE at 34. Plaintiff counters that the patentee did not demonstrate a clear intention to limit the claim scope and a “person having ordinary skill in the art, having read the specification of the Asserted Patents, would clearly understand that any suitable position indicator would suffice for usage in the described systems.” REPLY AT 4-5. Just as before, the Court finds no clear disavowal in the specification or

⁶ Defendants’ written description and enablement arguments are better suited for a motion for summary judgment.

prosecution history to limit the claim to “camera icon” or “cursor.” *See Liebel-Flarsheim*, 358 F.3d at 906. After rejecting Defendants’ proposal and resolving the scope of disputed term, the Court finds that no construction is necessary. *See O2 Micro Int’l Ltd.*, 521 F.3d at 1362.

e. Remaining ‘992 terms

Having resolved the underlying dispute over whether Claim 2 of the ‘992 patent is directed towards a recording device or a display device, the Court finds it unnecessary to construe the remaining disputed ‘992 terms. *See id.* As will be described in more detail below, the plain meaning of the terms in the context of a recording device resolves any remaining dispute.

i. “Control signals indicating content for video image”

| Plaintiff’s Proposed Construction | Defendants’ Proposed Construction |
|--|--|
| control signals indicating video image data from the content addressable video | control signals indicating relative positioning of a controllable image generator in relation to the subject |

Plaintiff mainly argues that “Defendants are trying to twist a video playback claim into a recording claim.” PLTFF’S BRIEF at 28. Moreover, Plaintiff argues that including “video image data” is a useful to aid the jury in connecting the second claim element with the third claim element which recites a “controllable image generator.” *See* REPLY at 9. This again relies on the assumption that “video image data” is referring to “frames of video data.” *Id.* However, as indicated *supra*, there is no support in the specification or in comparison to other claims that the “video image data” should be equated with “frames of data.”

Defendants’ proposal centers on interpreting the claim as a recording claim. While the Court agrees that “control signals” is used in conjunction with controlling a video recording device, there is not enough support for the conclusion that the control signals are *only* responsible for changing

the relative position of video recording device. Absent a clear disavowal in the specification or the prosecution history, the court will not read in such a limitation. *See Liebel-Flarsheim*, 358 F.3d at 906.

ii. “which produces video images”

| Plaintiff’s Proposed Construction | Defendants’ Proposed Construction |
|---|-----------------------------------|
| that generates video images for display | which records video images |

Construing “controllable image generator” as a “video recording device” results in a claim segment that reads a “video recording device . . . which produces video images.” Because the scope of the term “which produces video” is inherently limited by the “controllable image generator” construed above, the Court finds no construction necessary. *See O2 Micro Int’l Ltd.*, 521 F.3d at 1362.

III. Agreed Terms

The following constructions were agreed to at the *Markman* hearing.

| Claim Term Requiring Construction | Court Construction Agreed to by the Parties |
|---|---|
| executing program steps which assemble and display a content video image in response to the tags (Claim 6) | executing program steps which automate the assembly and display of a content video image response to the tags |
| executing program steps which associate the positions in the content video image with addresses of storage locations storing corresponding frames of video data (Claim 6) | executing program steps which automate the association of the positions in the content video image with addresses of storage locations storing corresponding frames of video data |
| first program steps which assemble a content video image in response to the tags | first program steps which automate the assembly of a content video image in response to the tags |
| second program steps which associate positions in the content video image with addresses of storage locations storing | second program steps which automate the association of positions in the content video image with addresses of storage locations |

| | |
|------------------------------------|--|
| corresponding frames of video data | storing corresponding frames of video data |
|------------------------------------|--|

The following agreed construction was presented at the *Markman*:

| Claim Term Requiring Construction | Construction Agreed to by the Parties |
|---|---------------------------------------|
| the tags indicating the contents of the video images defined by the associated frames | No construction necessary |

CONCLUSION

For the foregoing reasons, the Court adopts the constructions set forth above.

So ORDERED and SIGNED this 24th day of October, 2011.


JOHN D. LOVE
UNITED STATES MAGISTRATE JUDGE

APPENDIX A

U.S. Patent No. 5,684,514, Claim 1

| | Claim Term Requiring Construction | Patent Harbor's Proposed Construction | Defendants' Proposed Construction | Court's Construction |
|----|---|--|---|---|
| 1. | content video image | a visual representation of the content of the content addressable video | a virtual space representing the content of content addressable video that while traversed results in corresponding content addressable video being recorded or displayed | a virtual representation of the content of the content addressable video |
| 2. | the content video image including positions for corresponding frames of video data in the plurality | Patent Harbor does not believe that construing this phrase would be helpful to a jury. | the content video image including selectable positions for corresponding frames of video data | No construction necessary |
| 3. | first program steps which assemble a content video image in response to the tags | [AGREED] | [AGREED] | first program steps which automate the assembly of a content video image in response to the tags |
| 4. | second program steps which associate positions in the content video image with addresses of storage locations storing | [AGREED] | [AGREED] | second program steps which automate the association of positions in the content video image with addresses of storage locations storing corresponding |

| | Claim Term Requiring Construction | Patent Harbor's Proposed Construction | Defendants' Proposed Construction | Court's Construction |
|----|---|--|--|---|
| | corresponding frames of video data | | | frames of video data |
| 5. | in response to the tags | based on the tags | Does not require construction. | based on the tags |
| 6. | the tags indicating the contents of the video images defined by the associated frames | [AGREED] | [AGREED] | No construction necessary |
| 7. | tag storage which stores tags for associated frames of video data in the plurality | Patent Harbor does not believe that construing this phrase would be helpful to a jury. Alternatively, storage should be construed as "memory" | tag storage which stores a tag for each frame of video data in the plurality | No construction necessary |
| 8. | content addressable video | [AGREED] | [AGREED] | video data that is addressable based upon its content |

U.S. Patent No. 5,684,514, Claim 6

| | Claim Term Requiring Construction | Patent Harbor's Proposed Construction | Defendants' Proposed Construction | Court's Construction |
|----|---|--|---|---|
| 1. | content video image | a visual representation of the content of the content addressable video | a virtual space representing the content of content addressable video that while traversed results in corresponding content addressable video being recorded or displayed | a virtual representation of the content of the content addressable video |
| 2. | the content video image including positions indicating the content of corresponding frames of video data in the plurality | Patent Harbor does not believe that construing this phrase would be helpful to a jury. | the content video image including selectable positions indicating the content of corresponding frames of video data | No construction necessary |
| 3. | executing program steps which assemble and display a content video image in response to the tags | [AGREED] | [AGREED] | executing program steps which automate the assembly and display of a content video image response to the tags |
| 4. | executing program steps which associate the positions in the content video image with addresses of storage locations storing corresponding frames of video data | [AGREED] | [AGREED] | executing program steps which automate the association of the positions in the content video image with addresses of storage locations storing corresponding frames of video data |
| 5. | in response to the tags | based on the tags | Does not require construction. | based on the tags |
| 6. | storing tags in memory for frames of video data | Patent Harbor does not believe that construing | storing a tag in memory for each frame of video data in | No construction necessary |

| | Claim Term Requiring Construction | Patent Harbor's Proposed Construction | Defendants' Proposed Construction | Court's Construction |
|----|---|--|--|---|
| | in the plurality | this phrase would be helpful to a jury. | the plurality | |
| 7. | the tags indicating the contents of the video images defined by the associated frames | [AGREED] | [AGREED] | No construction necessary |
| 8. | content addressable video | [AGREED] | [AGREED] | video data that is addressable based upon its content |

U.S. Patent No. 5,977,992, Claim 2

| | Claim Term Requiring Construction | Patent Harbor's Proposed Construction | Defendants' Proposed Construction | Court's Construction |
|----|--|--|---|--|
| 1. | content video image | a visual representation of the content of the content addressable video | a virtual space representing the content of content addressable video that while traversed results in corresponding content addressable video being recorded or displayed | a virtual representation of the content of the content addressable video |
| 2. | the content video image having positions within the content video image corresponding to desired content of video images to be displayed | the content video image having positions within the content video image corresponding to the content of video to be generated for display | the content video image having selectable positions within the content video image corresponding to the content of video to be generated for display | No construction necessary |
| 3. | generating content addressable video | Patent Harbor does not believe that construing this phrase would be helpful to a jury. | recording frames of video data that may be addressed based upon their content | No construction necessary |
| 4. | controllable image generator | Patent Harbor does not believe that construing this phrase would be helpful to a jury. | a controllable camera | a controllable video recording device |
| 5. | which produces video images | that generates video images for display | which records video images | No construction necessary |
| 6. | content image display which displays a content video image | "content video image" should be construed as proposed above, and if the term "content image display" is to be construed, it should simply be | a computer monitor for displaying a content video image while content addressable video is generated and/or displayed | No construction necessary |

| | Claim Term Requiring Construction | Patent Harbor's Proposed Construction | Defendants' Proposed Construction | Court's Construction |
|-----|--|---|--|---|
| | | construed as "a display" | | |
| 7. | control signals indicating content for video images | control signals indicating video image data from the content addressable video | control signals indicating relative positioning of a controllable image generator in relation to the subject | No construction necessary |
| 8. | indicating content for video images | indicating video image data from the content addressable video | indicating relative positioning of a controllable image generator in relation to the subject | No construction necessary |
| 9. | in response to respective positions within the content video image | "content video image" should be construed as proposed above, and the remainder of the phrase requires no construction | in response to respective positions of a cursor or camera icon within the content video image | No construction necessary |
| 10. | content addressable video | [AGREED] | [AGREED] | video data that is addressable based upon its content |